

Appl. No. 09/890,364  
Amendment/Response in Reply  
Office Action dated October 27, 2003.

Page 3 of 9

**REMARKS/DISCUSSION OF ISSUES**

Claims 1-10 are pending in the present application. Claims 1 and 5 are the independent claims. As the claims have not been amended in connection with the present response, a complete listing of the claims is not provided as it is not required under 37 C.F.R. § 1.121 (c) (3).

***Rejections Under 35 USC § 112 ¶ 1***

The Office rejects claims 1-10 under 35 U.S.C. § 112 ¶ 1 as failing to comply with the written description requirement. In particular, the Office alleges that the disclosure does not limit the uniformity of the organic electroluminescent layer from being equal to 1.0.

It is respectfully submitted that from a review of the filed application, one of ordinary skill in the art would recognize that it is useful to provide an electroluminescent device and method of fabrication such a device having a proportion of the organic electroluminescent layer having a thickness within 20 % of the minimum thickness of the organic electroluminescent layer or the proportion of the organic electroluminescent layer having a thickness within 20 % of the maximum thickness of the organic electroluminescent layer, **is at least 0.55.**

Moreover, it is respectfully submitted that according to example embodiments described in the filed application, a plethora of quantitative values of the referenced proportions are given to improve the service lifetime. For example, the

Atty. Docket: PHN 17,755

Appl. No. 09/890,364

Page 4 of 9

Amendment/Response in Reply

Office Action dated October 27, 2003.

filed application cites proportions of at least 0.60, at least 0.7, and at least 0.75. Furthermore, the application notes that it is beneficial to the service lifetime that these proportions be 0.9 or 0.95. The disclosure also recognizes that the proportion is a measure of the uniformity of the thickness of the layer, and if the proportion is 1.0, the electroluminescent is perfectly uniform in thickness. (Kindly refer to page 2, lines 5-24 for support for the present assertions.)

It is respectfully submitted that the features of the application as filed, and as referenced above, set the floor of the proportion for improved service life at 0.55. The application notes the increasing preference for a greater proportion, citing the preference for the proportion to be 0.95. Moreover, the application recognizes that perfect uniformity is 1.0.

As such, the proportion should be greater than 0.55 for improved service lifetime, but cannot be more than 1.0 by mathematical definition. Thus, it is respectfully submitted that within the context of the application as filed, one skilled in the art would readily ascertain that the inventors had grasped that a proportion that is greater than 0.55 is needed, but also that a proportion that is less than 1.0 is beneficial according to the teachings of the application as filed.

**35 Rejections Under 35 USC § 103(a)**

The Office rejects claims 1-6 and 9-10 under 35 U.S.C. § 103(a) as being obvious in view of Nagayama, et al. (EP 0732868

Atty. Docket PHN 17,755

Appl. No. 09/890,364  
Amendment/Response in Reply  
Office Action dated October 27, 2003.

Page 5 of 9

A1) and *Illegems, et al.* (U.S. 6,208,074 B1); claim 7 in view of these references and further in view of *Kobayashi, et al.* (U.S. Patent 6,388,377 B1); and claim 8 in view of *Nagayama, et al., Illegems, et al., Kobayashi, et al.* and *Speakman* (U.S. 6,503,831).

First, it is noted that the Office Action of October 27, 2003, does not provide the requisite teaching, suggestion or motivation from the applied art to combine the references of *Nagayama, et al.* and *Illegems, et al.* Rather, the Office Action states that "It is well-known in the art that an organic electroluminescent layer with a uniform thickness has more consistent luminescence than one of widely varying thickness." (Kindly refer to page 5 of the Office Action of October 27, 2003). At least because the supplied motivation is not from the confines of the applied art, it cannot provide the requisite motivation to combine the applied references. For at least this reason, this rejection is improper and should be withdrawn.

It is respectfully submitted that independent claims 1 and 5 are patentable over the applied references, at least because the applied references neither teach nor suggest the at least the patentable feature that an "electroluminescent layer is substantially uniform in thickness to the extent that the **proportion of the organic electroluminescent layer having a thickness within 20 % of the minimum thickness of the organic electroluminescent layer or the proportion of the organic electroluminescent layer having a thickness within 20 % of the**

Atty. Docket PHN 17,755

Appl. No. 09/890,364  
Amendment/Response in Reply  
Office Action dated October 27, 2003.

Page 6 of 9

**maximum thickness of the organic electroluminescent layer, is at least 0.55, and less than 1.0.**

The reference to *Nagayama, et al.* lacks at least the limitations of claims 1 and 5 that have been captioned above. In fact the Office recognizes that the reference to *Nagayama, et al.* lacks the disclosure of the referenced limitations.

The Office relies on the reference to *Illegems, et al.* that teaches of spin coating an organic EL layer with a perfect uniform thickness. However, Applicants respectfully submit that *Illegems, et al.* does not disclose the referenced range of the thickness of the organic electroluminescent layer featured in claims 1 and 5. To this end, claims 1 and 5 each feature a proportion indicative of the uniformity, where 1.0 equates to a perfectly uniform thickness. The range of claim 1 is greater than 0.55 and less than 1.0. As such, claims 1 and 5 include proportions of 0.65, 0.75, 0.95, for example. However, these are not layers of perfectly uniform thickness. But the reference to *Illegems, et al.* is drawn to a perfectly uniform layer. As such, the reference to *Illegems, et al.* does not teach layers having the proportions featured in claims 1 and 5.

The Office further asserts that any layer of perfectly uniform thickness inherently fulfills the features of claims 1 and 5 referenced above. Applicants have asserted that the reference to *Illegems, et al.* is lacking of certain features of claims 1 and 5.

It is well-established that to establish inherency, extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be recognized by persons of

Atty. Docket PHN 17,755

Appl. No. 09/890,364

Page 7 of 9

Amendment/Response in Reply

Office Action dated October 27, 2003.

ordinary skill in the art. However, inherency may not be established by possibilities and probabilities. The mere fact that a certain thing result may result from a given set of circumstances is not sufficient.

As asserted above, the reference to *Illegems, et al.* is drawn to forming layers of perfectly uniform thickness. Therefore, layers of less than perfectly uniform thickness are not described, and certainly are not a result of the methods of the reference. As such, it is respectfully asserted that these layers do not necessarily follow from, and are thus not inherent to *Illegems, et al.* In view of this assertion, Applicants respectfully request extrinsic evidence supporting the Office's position. If the assertion of inherency is based on the personal knowledge of the Examiner, and affidavit under 37 C.F.R. 1.104(d) (2) is respectfully requested. In absence of either the extrinsic evidence or the affidavit the claim of inherency should be withdrawn.

Applicants maintain the assertions of the impropriety of the combination of *Nagayama, et al.* and *Illegems, et al.* set forth in a previous response. Accordingly, while no way conceding as to the propriety of the rejections set forth in the Office Actions, or the propriety of the combination of the applied references set forth in the Office Actions, Applicants respectfully submit that the applied art lacks a teaching of at least one of the features of claims 1 and 5. As such, claims 1 and 5, and the claims that depend therefrom are allowable over the applied art. Allowance is earnestly solicited.

Atty. Docket PHN 17,755

Appl. No. 09/890,364  
Amendment/Response in Reply  
Office Action dated October 27, 2003.

Page 8 of 9

**Conclusion**

In view of the foregoing, applicant respectfully requests withdrawal of the above noted rejection of record, the allowance of all pending claims, and the holding of this application in condition for allowance. If any points remain of issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Except as otherwise stated in the above noted Remarks, Applicant notes that each of the amendments have been made to place the claims in better form by merely amending corresponding claims to improve antecedent, not to distinguish the claims from prior art references, otherwise narrow the scope of previously pending claims or comply with other statutory requirements.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies to charge payment or credit any overpayment to Deposit Account Number 50-0238 for any required fees including, but not limited to, any fees required under 37 C.F.R. \$1.16 or under 37 C.F.R. \$1.17.

In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact William S. Francos, Esq. (Reg. No. 38,456) at (610) 375-3513 to discuss these matters.

Atty. Docket PHN 17,755

Appl. No. 09/890,364  
Amendment/Response in Reply  
Office Action dated October 27, 2003.

Page 9 of 9

Respectfully submitted on behalf of:  
Philips Electronics North America Corp.

  
by: William S. Francos (Reg. No. 38,456)

December 29, 2003  
Volentine Francos, PLLC  
Treeview Corporate Center  
Two Meridian Blvd.  
Wyomissing, PA 19610  
(610) 375-3513

Atty. Docket PHN 17,755